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Is Internet access a human right? Linking information and communication technology (ICT) development with global human rights efforts

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Abstract

The wave of uprisings and protests in Arab nations since late 2010, in part attributed to the use of social media and Internet access, has demonstrated the immense potential of information and communication technologies (ICTs) channeled for democracy. This paper argues that universal access to the global Internet is essential for the preservation of democracy and human rights and places the recent United Nations declaration that *Internet access is a human right* in the context of ongoing debates about the right to communicate, clarifying the distinction between universal service and the right to communicate. In particular, access to online content, required infrastructure, and ICTs is addressed, underscoring "the unique and transformative nature of the Internet not only to enable individuals to exercise their right to freedom of opinion and expression, but also a range of other human rights, and to promote the progress of society as a whole."¹ A basic right to communicate should also include access to developments such as the World Wide Web and emerging social media, as these are increasingly enabling active citizen participation.² Envisioning participatory policy as grass-roots engagement, I address claims that modern ICTs can be employed to create public spaces for

¹ United Nations Human Rights Council, *Report of the Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression*, Frank La Rue (Geneva, Switzerland: United Nations, 2011), 1.

² Jenifer S. Winter and Dan J. Wedemeyer, "The Roots of the Right to Communicate and Emerging Participatory Policy," in *The Right to Communicate: Historical Hopes, Global Debates, and Future Premises*, edited by Aliaa Dakroury, Mahmoud Eid, and Yahya R. Kamalipour (Dubuque, IA: Kendall Hunt, 2009), 53-5.

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discourse and a reinvigoration of democratic processes³ and emphasize the need to link ICT development with human rights efforts worldwide.

Introduction

The wave of uprisings and protests in Arab nations that started in late 2010, in part attributed to the use of social media and Internet access, has demonstrated the immense potential of information and communication technologies (ICTs) channeled for democracy. A number of countries, including Estonia, Finland, and Costa Rica, have embodied citizen access to the Internet in national laws, and in 2011, the United Nations declared that Internet access is a fundamental human right. In the United Nations declaration, focus is also placed upon the dimension of access to online content, underscoring "the unique and transformative nature of the Internet not only to enable individuals to exercise their right to freedom of opinion and expression, but also a range of other human rights, and to promote the progress of society as a whole."⁴

The robust debate about whether the Internet, or access to it, should be considered a human right is not without precedent. Although the Internet itself is just over forty years old, and its widespread public use less than two decades old, this debate has centuries-old roots in principles and discussions related to both universal service and the right to communicate, and has evolved in the context of prevailing ICTs. To address the question of whether Internet access should be considered a human right, I first explain the historical context of the right to communicate debates and the universal services principle, highlighting the difference between

³ e.g., the Internet as a platform for the "public sphere" as imagined by Jürgen Habermas, *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society* (Cambridge, MA: MIT Press, 1991), 14.

⁴ United Nations Human Rights Council, *Report of the Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression*, Frank La Rue, 1.

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the two concepts. I then examine the arguments put forth in the United Nations Human Rights Council's pronouncement that Internet access is a human right.⁵ I conclude with a discussion of participatory policy as grass-roots engagement, addressing claims that modern ICTs can be employed to create public spaces for discourse and a reinvigoration of democratic processes and emphasizing the need to link ICT development with human rights efforts worldwide.

The Right to Communicate

The concept of a right to communicate has ancient origins, with its intellectual roots stretching back as far as the 17th century works of John Milton.⁶ The present understanding of the right to communicate emerged in the context of Article 19 of the *Universal Declaration of Human Rights*, which addresses the right to information:

Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers.⁷

For the first half of the twentieth century, ICTs were limited to telephony and terrestrial radio, with the late addition of television. The emergence of satellite communications in the late 1950s, and in particular the potential for the technology's global reach, was a major development. This new technology held the potential to move beyond the many-to-one broadcast model of mass media to one of interactivity, and it also offered to extend the reach of communication to every corner of the globe. The term "right to communicate" was first mentioned by Jean d'Arcy in an

⁵ Ibid., 1

⁶ Aliaa I. Dakroury and William F. Birdsall, "Blogs and the Right to Communicate: Towards Creating a Space-less Public Sphere?," *IEEE International Symposium on Technology and Society* (2008): 1

⁷ United Nations, *The Universal Declaration of Human Rights* (Geneva, Switzerland: United Nations, 1948), accessed March 11, 2012, <http://www.un.org/Overview/rights.html#a19>

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influential paper entitled "Direct Broadcast Satellites and the Right of Man to Communicate."⁸

Seeing the vast promise of new and emerging ICTs to expand communication networks worldwide, d'Arcy argued that the Universal Declaration of Human Rights' description of the right to information would be insufficient, and that a more expansive right to communicate was required. However, he also recognized that ICTs could be used to censor personal expression.⁹

D'Arcy's ideas were a spark that ignited existing concern about information inequalities around the world. The 1976 UNESCO General Conference was the site of passionate debates centering on fair world communication policies in light of new communication potentials enabled by ICTs.¹⁰ This was a time when the forces of globalization were first being observed and discussed, as the global community began to understand the opportunities and threats related to the global exchange of economic and political information. The right to communicate, as proposed by d'Arcy, was seen as somewhat ambiguous, and a more complex understanding of it soon began to emerge.

At the 1978 United Nations Educational Scientific and Cultural Organization meeting, *Toward a Definition of the Right to Communicate*, it was acknowledged that communication

⁸ Jean d'Arcy, "Direct Broadcast Satellites and the Right of Man to Communicate," *European Broadcasting Union Review* 118 (1969). Reprinted in *Right to Communicate: Collected Papers*, edited by L. Stan Harms, Jim Richstad, and Kathleen Kie (Honolulu, Hawaii: Social Sciences Institute, University of Hawaii, 1977): 1-2.

⁹ Aliaa I. Dakroury, "The Baron of the Right to Communicate: Jean d'Arcy (1913-1983)," in *The Right to Communicate: Historical Hopes, Global Debates, and Future Premises*, edited by Aliaa Dakroury, Mahmoud Eid, and Yahya R. Kamalipour (Dubuque, IA: Kendall Hunt, 2009), 27.

¹⁰ L. Stan Harms and Jim Richstad, "Right to Communicate: Framework for the Evolution of a Fair World Communication Policy," in *Communication Policy and the Right to Communicate*, edited by Hanno Hardt, Stig Hadenius, Tomo Martelanc, L. Stan. Harms, Jim Richstad, and Hendrik Schmidt (Honolulu, Hawaii: University of Hawaii at Manoa, 1977), 25-6.

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rights must include ethnic identity, language, and culture.¹¹ The New World Information and Communication Order (NWICO) discussions initiated in the 1970s also channeled long-held concerns about media representation in less-developed nations, and the imbalanced flow of information between regions. The McBride Commission report, published in 1980, acknowledged these concerns, and called for an expansion of communication rights. During this same period, Sven Hamrell and Olle Nordberg of the Dag Hammarskjöld Foundation asserted that the right to communicate should be acknowledged as a fundamental human need and the foundation of an authentic democracy.¹² They based their argument, in part, on the principles of *pluralism, communication versus information* (a mutually beneficial exchange of information, rather than "vertical dispensation"), and the *appropriate use of ICTs*. In essence, ICTs should be used to "promote richer and more diverse communication."¹³ Their concern with mutual exchange of information highlighted the potential of ICT to shift from one-way models of communication to a more participatory model.¹⁴

By the early 1980s, there was a growing sense of international interdependence among proponents of communication rights, an emerging multi-cultural consciousness that recognized the need for diverse cultural and political backgrounds in the discussion of communication rights, and burgeoning recognition of communication as a two-way, interactive process.¹⁵

¹¹ United Nations Educational Scientific and Cultural Organization, *Toward a Definition of the Right to Communicate: An Expert Meeting* (Geneva, Switzerland: United Nations, 1978), 13.

¹² Sven Hamrell and Olle Nordberg, "The Right to Inform and Be Informed," *Development Dialogue* (1981): 2-3.

¹³ *Ibid.*, 4.

¹⁴ Jenifer S. Winter and Dan J. Wedemeyer, "The Roots of the Right to Communicate and Emerging Participatory Policy," in *The Right to Communicate: Historical Hopes, Global Debates, and Future Premises*, edited by Aliaa Dakroury, Mahmoud Eid, and Yahya R. Kamalipour (Dubuque, IA: Kendall Hunt, 2009), 53-4.

¹⁵ Desmond Fisher, "The Achievement of a New Right to Communicate", *Intermedia* 11 (1983): 36-7.

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Despite this promise, work towards formal recognition of the right to communicate soon fell apart. At the 1983 UNESCO General Conference in Paris, many anticipated that a formal resolution on the right to communicate would be drafted. While UNESCO endorsed the McBride Report, Hamelink and Hoffman describe the disruption caused by "ideological disputes, mutual distrust and incidental uprisings of paranoia which eventually made it impossible to consider the merits of all arguments in a rational matter."¹⁶ The political sensitivity surrounding the discussion of the right to communicate halted any progress on its definition or formal recognition.

In subsequent decades, as Internet use diffused throughout the world, and the interactivity of the World Wide Web highlighted its potential for citizen engagement, there was a resurgence of interest in the right to communicate. In an Information Society, where the access, creation, manipulation, and distribution of information are key aspects of economic, political, and sociocultural life, a lack of access to ICTs and relevant content puts individuals, regions, and nations at a great disadvantage. The digital divide is a complex and dynamic concept with many dimensions and occurring at many levels.¹⁷ It involves not only a lack of access to telecommunications infrastructure and equipment, but also a lack of "relevant and locally-developed content."¹⁸

Prior to the 2003 World Summit of the Information Society (WSIS) there was a call to formally recognize the right to communicate as a provision of international law. As Hamelink

¹⁶ Cees J. Hamelink and Julia Hoffman, "The State of the Right to Communicate," *Global Media Journal* 7 (2008): 14.

¹⁷ See International Telecommunication Union, *World Information Society Report: Beyond WSIS* (Geneva, Switzerland: International Telecommunication Union, 2007) and Jan A.G.M. van Dijk, *The Deepening Divide: Inequality in the Information Society* (Thousand Oaks, CA: Sage, 2005).

¹⁸ International Telecommunication Union, *A 2010 Leadership Imperative: The Future Built on Broadband* (Geneva, Switzerland: International Telecommunication Union, 2010), 31.

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describes, a Universal Declaration on the right to communicate was expected to contain "provisions on several human rights, on acceptable limitations of these rights, and on a mechanism for effective implementation."¹⁹ This effort was spearheaded by the Communication Rights in the Information Society (CRIS) Campaign,²⁰ which hoped to embody the right to communicate in international law in the context of the WSIS meeting.

The CRIS Campaign identified "four pillars" of communication rights. The first pillar, *Communicating in the Public Sphere*, relates to how ICTs enable citizens to participate in democratic society. This most directly relates to the "existence of spaces and resources for the public, everyone, to engage in transparent, informed and sustained democratic debate."²¹ Rights related to communicating in the public sphere include freedom of expression, freedom of the press (including online), access to government information, and universal access to media necessary for informed public discourse. It also addresses access to knowledge that is of public interest. The use of interactive Social Networking Services (SNS) to foster citizen and government communication has been described as "Government 2.0".²² ICTs are recognized as potential channels for democratic discourse and increased political participation. In particular, the World Wide Web and SNS are acknowledged as a potential platform for the emergence of the "public sphere" as envisioned by Habermas.²³ There is still a great deal of debate about

¹⁹ Cees J. Hamelink, *Human Rights for Communicators* (Cresskill, NJ: Hampton University Press, 2004), 12.

²⁰ Communication Rights in the Information Society Campaign (CRIS), *Assessing Communication Rights: A Handbook* (Toronto, Canada: CRIS Campaign, 2005), accessed January 24, 2011, <http://centreforcommunicationrights.org/images/stories/database/tools/cris-manual-en.pdf>

²¹ *Ibid.*, 40.

²² Soon Ae Chun et al., "Government 2.0: Making Connections between Citizens, Data and Government," *Information Polity* 15 (2010): 2.

²³ Jürgen Habermas, *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society* (Cambridge, MA: MIT Press, 1991), 14.

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whether the Internet is truly helping to create a virtual space where citizens can guide political action through public discussion. Representing one perspective, Benkler argues that the increased feedback opportunities available via the Internet represent the emergence of an online public sphere.²⁴ Similarly, Dakroury and Birdsall describe how blogs can lead to development of a global "communicative consciousness".²⁵ On the other hand, Hindman argues that media consolidation via the Internet has tended to reinforce preexisting power structures and limits the amount of diverse discussion and political engagement citizens encounter.²⁶ Certainly, ICT use is constrained or enabled by a variety of local circumstances, including politics and regulation, economics, and sociocultural aspects. However, SNS are defined by user-generated content, multi-way communication, and various other new-media based capabilities.²⁷ Thus, they offer unprecedented *potential* for grass-roots political discussion and distributed governance.

The second pillar identified by the CRIS Campaign, *Communication Knowledge*, examines the full breadth of knowledge, not just those aspects focusing on political discourse. Its goal is to foster decentralization of knowledge production and consumption on a global level. This includes "affordable universal access to conventional and ICT-based networks", specifying that these should be built from the bottom-up and based on actual needs.²⁸ Communication knowledge rights include ensuring that publicly-funded knowledge is in the public domain,

²⁴ Yochai Benkler, *The Wealth of Networks: How Social Production Transforms Markets and Freedom* (New Haven, CT: Yale University Press, 2006), 212.

²⁵ Aliaa I. Dakroury and William F. Birdsall, "Blogs and the Right to Communicate: Towards Creating a Space-less Public Sphere?," *IEEE International Symposium on Technology and Society* (2008): 2.

²⁶ Matthew Hindman, *The Myth of Digital Democracy* (Princeton, NJ: Princeton University Press, 2009), 11.

²⁷ Scott Robertson, Ravi Vatrappu and Richard Medina, "The Social Life of Social Networks: Facebook Linkage Patterns in the 2008 U.S. Presidential Election" (paper presented at the 10th International Digital Government Research Conference, Puebla, Mexico, May 17-21, 2009): 7.

²⁸ Communication Rights in the Information Society Campaign (CRIS), *Assessing Communication Rights: A Handbook*, 40.

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affordable and equitable access to all media, and developing citizen capability to use ICTs. A basic right to communicate should also include access to developments such as the World Wide Web and emerging social media, as these are increasingly enabling active citizen participation.²⁹

A third pillar, *Civil Rights in Communication*, addresses the security of civil rights related to communication. Civil rights include the right to legal equality and protection against defamation, invasions of privacy, and surveillance.

The final pillar, *Cultural Rights in Communication*, deals with the diversity of culture and cultural identity, and "respecting, preserving, and renewing existing cultures."³⁰ This addresses long-standing concern about cultural homogenization driven by mass media (e.g., commodification of indigenous cultures such as native Hawaiian or First Nations). Cultural rights would include the ability to learn in and communicate in one's native tongue and participation in one's cultural community.

Despite extensive preparation to support a constructive, multi-stakeholder discussion at WSIS, Hamelink and Hoffmann describe a resurgence of acrimonious and unproductive debate about the right to communicate prior to the conference. Ultimately, the right to communicate was not included in the resulting WSIS Declaration.³¹ Critics pointed out that the language and tone of WSIS documentation appeared to equate the right to communicate (which was not mentioned explicitly) with physical access to ICTs.

It is important to note that the right to communicate is a much more complex subject than access to technology. According to Harms, the right to communicate is both "multi-layered" and

²⁹ Jenifer S. Winter and Dan J. Wedemeyer, "The Roots of the Right to Communicate and Emerging Participatory Policy," 58.

³⁰ Communication Rights in the Information Society Campaign (CRIS), *Assessing Communication Rights: A Handbook*, 41.

³¹ Cees J. Hamelink and Julia Hoffman, "The State of the Right to Communicate," 26.

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constantly evolving.³² He describes the right to communicate as a framework that includes an array of communication rights. A major distinction between proponents of a right to communicate and those seeking access rights more generally is a human-centric communication focus. Thus, the emphasis is on human communication and the exchange of thought and meaning as a basic right, not on the technology itself. While ICTs are an important part of human communication in a global, Information Society, they are not the focal point.

The Universal Service Principle

The universal service principle is not synonymous with the right to communicate, as it is limits its focus on the provision of telecom service (i.e., aspects of the CRIS Campaign's first and second pillars). This principle was the foundation of information policy for most of the 20th century.³³ Essentially, it represents the idea that all members of society should have access to at least basic services on a public network:

In principle, this has meant access to a telephone; and for most of the 20st century the idea that every American should enjoy moderately priced telephone service has defined both the telecommunications environment and citizens' rights within it.³⁴

What is considered "basic" has evolved. Historically, the principle emerged in the context of mail carrier systems, with England's Uniform Penny Post in 1840.³⁵ Over time, it became equated with landline telephony. For example, in United States communications law, it appears as a foundation of the *Communication Act of 1934*, tied to a single technology, the landline

³² L. Stan Harms, "The Right to Communicate: Towards Explicit Recognition," *Intermedia* 29 (2001): 32-3.

³³ See Jorge R. Schement, "Beyond Universal Service: Characteristics of Americans without Telephones, 1980-1993," *Telecommunications Policy* 19 (1995), and Philip M. Napoli, *Foundations of Communications Policy: Principles and Process in the Regulation of Electronic Media* (Cresskill, NJ: Hampton Press, 2001).

³⁴ Jorge R. Schement, "Beyond Universal Service: Characteristics of Americans without Telephones, 1980-1993," 483.

³⁵ Michael A. Crew and Paul R. Kleindorfer, "Efficient Entry, Monopoly, and the Universal Service Obligation in Postal Service," *Journal of Regulatory Economics* 14 (1998): 104.

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phone. At that time, phone service in the United States was a government-sanctioned natural monopoly, managed by AT&T. In exchange for monopoly rights, the government mandated that AT&T provide all citizens, whether they lived in a populated city or many miles away in a rural community, the same basic rate for telephone service. Because there was a single carrier, long-distance calls subsidized local rates.³⁶ While at its roots, universal service is intended to provide a social good and enable citizens in a democratic society to access information in order to make reasoned political decisions and participate in shared governance at local and national levels, it can also be seen as an economic policy (from the point of view of the carriers) and a defense policy (from the state's perspective).

Technological innovation, particularly the merger of phone service and computers beginning in the late 1960s, outpaced regulatory structures, and laws were slowly revised.³⁷ In the United States, under the *Telecommunications Act of 1996*, a commitment to universal service was reaffirmed, but it was interpreted as being tantamount to a competitive marketplace. In retrospective analysis, true competition did not emerge.³⁸ Further, the law failed to acknowledge the growing importance of the Internet, which was already well established and widely adopted by citizens at the time of its creation. Subsequently, there are numerous gaps in coverage, with many rural areas having no viable options to connect to broadband Internet. As a whole, the

³⁶ Gerald W. Brock, *Telecommunication Policy for the Information Age* (Cambridge: Harvard University Press, 2004), 67.

³⁷ Ibid.

³⁸ David J. Atkin, Tuenyu Lau and Carolyn A. Lin, "Still on Hold? A Retrospective Analysis of Competitive Implications of the *Telecommunication Act of 1996*, on its 10th Year Anniversary," *Telecommunications Policy* 30 (2006): 92-3.

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United States has been on a downward slide, moving from 4th place among member states in the OECD's broadband rankings in 2001 to 15th in 2011.³⁹

Although universal service has long been associated with local telephone service, it is best understood as an evolving concept, not as a single policy or linked to a single technology. While for most of the 20th century, a basic landline was sufficient, the widespread diffusion of the Internet beginning in the early 1990s, and its explicit link to political and economic processes, calls for a reconsideration of what should be seen as 'basic' communication necessity. In an Information Society, where economic and political engagement are reliant upon access and relevant skills, Internet access should be considered a basic need.

A variety of nations have addressed this need with legislation. In 2000, the Estonian parliament added Internet access to its universal service provisions. Other nations, and the European Union, have discussed whether to extend universal service to include Internet provision, and many others have taken steps to make Internet access more affordable and pervasive.

More dramatically, in July, 2010, Finland became the first nation to explicitly guarantee its citizens the *right* to Internet access. At this time, the law specifies 1 Mbps Internet access, with plans to upgrade this to 100 Mbps by 2015.⁴⁰ That same year, the Costa Rican Constitutional Court ruled that the Internet is a fundamental human right, possibly a move to pressure the government to expand national telecommunications infrastructure due to a present

³⁹ Organisation for Economic Co-operation and Development, "OECD Broadband Portal," last modified March 5, 2012, http://www.oecd.org/document/54/0,3746,en_2649_34225_38690102_1_1_1_1,00.html

⁴⁰ "Finland Makes Broadband a Legal Right," *BBC News*, July 1, 2010, accessed May 15, 2012, <http://www.bbc.co.uk/news/10461048>

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lack of universal service provisions.⁴¹ A major development in this discussion occurred in 2011, when the United Nations issued a report that declared that *Internet access is a human right*. While this announcement has created quite a commotion, it is important to recognize that it is merely a guide or suggestion and not a mandate possessing any legal clout. Nonetheless, as a statement, it has become a focal point for discussion.

The United Nations Declaration: Internet Access as a Human Right

The UN declaration was drafted by Frank La Rue, Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression. Just as D'Arcy addressed the potential of satellites as a catalyst for interactivity four decades ago, LaRue highlights the substantial and transformative potential of the Internet:

one of the most powerful instruments of the 21st century for increasing transparency in the conduct of the powerful, access to information, and for facilitating active citizen participation in building democratic societies. Indeed, the recent wave of demonstrations in countries across the Middle East and North African region has shown the key role that the Internet can play in mobilizing the population to call for justice, equality, accountability and better respect for human rights. As such, facilitating access to the Internet for all individuals, with as little restriction to online content as possible, should be a priority for all States.⁴²

The Internet, and more specifically the World Wide Web and SNS, have the *potential* to channel active participation, allowing citizens to directly engage in the policy-making process. This vision of political engagement as grass-roots effort has broadened our understanding of governance.⁴³ A modern understanding of participatory governance also must acknowledge that

⁴¹ "Acceso a Internet es un derecho fundamental," *La Nación*, September 8, 2010, accessed May 31, 2012, <http://www.nacion.com/2010-09-08/EIPais/NotasSecundarias/EIPais2514038.aspx>

⁴² United Nations Human Rights Council, *Report of the Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression*, Frank La Rue, 4.

⁴³ Sheila Jasanoff, "Science and Citizenship: A New Synergy," *Science and Public Policy* 31 (2003): 226-7.

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citizens, and not only experts, actively create knowledge. Bucchi and Neresini emphasize that "lay knowledge is not an impoverished or quantitatively inferior version of expert knowledge; it is qualitatively different."⁴⁴ This can best be understood in the context of Beck's claim that present society is characterized by risk, essentially a systematic method of handling the various threats introduced by the advance of technologies, including ICTs.⁴⁵ Problems are not merely technological, but are institutional, embedded in processes that place little value on public opinion or concern.

Castells describes how participation increasingly relies on new communication technologies for organization – however, the ICTs are enablers and not synonymous with the Network Society.⁴⁶ Essentially, the emergence of SNS and other ICTs has created new avenues for self-organization and allows citizens to avoid state-imposed censorship. Here, access is a necessary but not sufficient condition for social movements to arise. The richer human context is always the true root – political corruption, exploitation, police violence, censorship, or other forms of oppression.

In the UN declaration the Internet is seen as an enabler of individuals to exercise their right to freedom of opinion and expression, but – importantly – also a foundation for an array of other human rights. LaRue emphasizes two dimensions: 1) availability of infrastructure, and 2) content access without restrictions (except in cases where access violates international human rights law).

⁴⁴ Massimiano Bucchi and Federico Neresini, "Science and Public Participation," in *The Handbook of Science and Technology Studies*, 3rd ed., edited by Edward J. Hackett et al. (Cambridge, MA: MIT Press, 2008), 451.

⁴⁵ Ulrich Beck, *Risk Society: Towards a New Modernity* (London: Sage, 1992), 21.

⁴⁶ Manuel Castells, *Communication Power* (New York: Oxford University Press, 2009), 4.

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The first dimension, *availability of infrastructure*, deals with the provision of telecommunications infrastructure, as well as access to necessary ICTs and software. LaRue fully acknowledges that this goal is not immediately attainable in many situations, due to conditions in many locations. Rather, it addresses the obligation of all states to:

promote or to facilitate the enjoyment of the right to freedom of expression and the means necessary to exercise this right, including the Internet. Hence, States should adopt effective and concrete policies and strategies – developed in consultation with individuals from all segments of society, including the private sector as well as relevant Government ministries – to make the Internet widely available, accessible and affordable to all.⁴⁷

This first dimension is in line with the work of the International Telecommunication Union,⁴⁸ and aspects of the CRIS Campaign's first and second pillars. It is also very much in alignment with policy initiatives focusing on universal service.

Although it is in alignment with many existing efforts and sentiments, even this first dimension has been met with rebuttal. Recently, Vinton Cerf, recognized as a "father of the Internet" for his early work in developing the TCP/IP protocol suite that is a technical foundation of the present Internet, wrote an influential opinion piece in which he claimed "Internet access is not a human right."⁴⁹ He claims that, "technology is an enabler of rights, not a right itself."⁵⁰ This distinction largely stems from his concern that there was too much focus on a single technology (the Internet) and that better things will emerge in the future. Cerf is certainly correct that technology is an enabler of rights and should not be the sole focus, just as he is correct in his

⁴⁷ United Nations Human Rights Council, *Report of the Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression*, Frank La Rue, 19.

⁴⁸ See International Telecommunication Union, *A 2010 Leadership Imperative: The Future Built on Broadband* (Geneva, Switzerland: International Telecommunication Union, 2010) and International Telecommunication Union, *World Information Society Report: Beyond WSIS*.

⁴⁹ Vinton G. Cerf, "Internet Access is Not a Human Right," *The New York Times*, January 4, 2012, accessed January 4, 2012, <http://www.nytimes.com/2012/01/05/opinion/internet-access-is-not-a-human-right.html>

⁵⁰ *Ibid.*, 3.

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concern about linking human rights to a specific technology that may become obsolete.

However, the Internet is not a single technology. Rather, it is a sociotechnical network that employs a wide variety of technical tools, customs, and organizations. The technical protocols that it is built upon have constantly evolved. The greater danger would be to link a law to specific attributes of the Internet. For example, a law stating that broadband Internet is defined as a particular data rate – a widely varying number which has been constantly updated and does not adequately account for quality of service (QoS) – would be problematic. However, for Cerf, it is not just about the technology. In a subsequent interview, he reflected,

Is access to whatever the current enabler of human interaction is at a given historical moment a human right? I wouldn't say an individual has the right to be given access, but he or she should have the right not to be denied access if they can get it.⁵¹

This is an interesting twist that will lead us into discussion of the second dimension addressed by LaRue, *content access*, which examines how states restrict, control, or otherwise censor Internet content. The first of these is the *arbitrary blocking or filtering of content*. These are technical measures taken to filter or block access to resources, and they are performed both in circumstances where there is no legal basis and where broad, ambiguous laws can be exploited. Many instances of blocking or filtering of content were evident in the recent Arab Spring uprisings, a series of protests in the Middle East and North Africa that were sparked by protests in Tunisia and have now spread to numerous countries, including some outside the region. One of the more extreme examples of blocking occurred on January 28, 2011, when then-President Hosni Mubarak amid rising political unrest, essentially shut down the Internet, including mobile

⁵¹ "Vint Cerf of Google on Internet rights," *The Christian Science Monitor*, March 8, 2012, 5, accessed on March 11, 2012, <http://www.csmonitor.com/Commentary/Global-Viewpoint/2012/0308/Vint-Cerf-of-Google-on-Internet-rights-interview>

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services, in Egypt.⁵² In addition to affecting Egypt's citizens, this act darkened critical fiber optic routes that link Asia, Africa, and Europe, highlighting the fragility of our global Internet.

Criminalization of legitimate expression is a second aspect of content restriction. LaRue points to instances such as the arrest and detention of Chinese bloggers in China, Vietnam, and Iran. He reminds states that the right to freedom of expression extends to views that may be perceived as offensive.⁵³ A third aspect of censorship is the *imposition of intermediary liability*, where ISPs may be punished for not filtering content they are hosting or linking to. LaRue reminds corporations that they are also responsible for upholding human rights by establishing clear, transparent terms of service in line with international human rights guidelines.

A fourth aspect involves *disconnecting users from Internet access*.⁵⁴ A recent trend involves states seeking to deny users access to the Internet if they are perceived as having violated intellectual property laws. France is a particularly interesting example of the conflict between communication rights, as a controversial 'three strikes' law was challenged by the Constitutional Council in 2009, leading to a declaration that "Internet access is a human right". Soon after, however, a revised version of the same law was approved, allowing the disconnection of an individual from the Internet if, after judicial review, they were found to violate intellectual property law.⁵⁵

⁵² Christopher Rhoads and Geoffrey A. Fowler, "Egypt Shuts Down Internet, Cell Phone Services," *The Wall Street Journal*, January 29, 2011, accessed January 29, 2011, <http://online.wsj.com/article/SB10001424052748703956604576110453371369740.html>

⁵³ United Nations Human Rights Council, *Report of the Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression*, Frank La Rue, 11.

⁵⁴ *Ibid.*, 14.

⁵⁵ "French Downloaders Face Government Grilling," *BBC News*, July 27, 2011, accessed May 15, 2012, <http://www.bbc.com/news/technology-14294517>

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In the United States, a series of proposed laws have come before Congress, seeking to shut down ISPs that host materials merely claimed to be violations of intellectual property. In addition to massive online protests against the Stop Online Piracy Act (SOPA) and Protect IP Act (PIPA), the Association for Computing Machinery released a public statement warning that the operation of domain name servers (DNS) could be severely harmed by their implementation.⁵⁶ As DNS is a global system, numerous third parties would be negatively affected. On a regional scale, the Anti-Counterfeiting Trade Agreement (ACTA) seeks to create international standards for the protection of intellectual property, and at one point included involuntary disconnection from the Internet for perceived offenders.⁵⁷ An important consideration is that *any* country, even those considered progressive democracies, may be actively censoring its citizens.

LaRue also includes as content restriction *cyber-attacks*, as they can severely restrict access to online content, and human right organizations or dissidents have increasingly been affected.⁵⁸ This is an interesting claim, as it is often difficult to determine, with certainty, who initiated an attack. Ralph Langer, a cyber-security expert who deconstructed the sophisticated Stuxnet worm concluded that, "The idea behind the Stuxnet computer worm is actually quite simple. We don't want Iran to get the bomb."⁵⁹ After determining that Stuxnet was an attack designed to destroy a uranium-rich facility in Iran, he concluded that the likely builder was a military superpower such as the United States. The worm is generic, he points out, and could be

⁵⁶ Association for Computing Machinery, *Analysis of PIPA's Impact on DNS and DNSSEC* (New York: Association for Computing Machinery, 2012), 1.

⁵⁷ United Nations Human Rights Council, *Report of the Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression, Frank La Rue*, 14.

⁵⁸ *Ibid.*, 15.

⁵⁹ Ralph Langner, "Cracking Stuxnet, a 21st-century Cyber Weapon" (New York: TED, 2011), 1.

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used effectively in many large power plants, automobile manufacturing facilities, or other locations. As such, future targets will likely be in Europe, the United States, and Japan. Clearly, states' use of cyberwarfare to deny access will in many cases lead to other human rights violations.

Inadequate privacy/data protection is the final category addressed by LaRue. He notes that "surveillance often takes place for political, rather than security reasons in an arbitrary and covert manner."⁶⁰ Like cybersecurity, privacy and data protection are likely to raise some interesting conflicts with other aspects of human rights protection. For example, a balance must be kept between the goals of transparency and providing data for the public's benefit and releasing too much information in violation of personal privacy. In the age of "big data" where public records and numerous sources of information stripped of publicly identifiable information are released and manipulated via automated processes, data mining is enabling profiles of individual behavior. Information about one's race, ethnicity, religion, or political views can be inferred from these data.⁶¹ For example, using data mining techniques to analyze innocuous purchases such as unscented lotions, the Target Corporation was able to determine whether young women were pregnant long before they announced it to others.⁶²

To bolster arguments about content restrictions, the UN declaration explicitly draws on article 19 of the UDHR. LaRue points out that the Article 19 was

⁶⁰ United Nations Human Rights Council, *Report of the Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression*, Frank La Rue, 15.

⁶¹ Jenifer S. Winter, "Privacy and the Emerging Internet of Things: Using the Framework of Contextual Integrity to Inform Policy" (paper presented at the Pacific Telecommunications Council Conference Honolulu, Hawaii, January 15-19, 2012): 8.

⁶² Charles Duhigg, "How Companies Learn Your Secrets," *The New York Times*, February 16, 2012, accessed February 18, 2012, <http://www.nytimes.com/2012/02/19/magazine/shopping-habits.html>

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drafted with foresight to include and to accommodate future technological developments" through which individuals can exercise their right to freedom of expression. Hence, the framework of international human rights law remains relevant today and equally applicable to new communication technologies such as the Internet.⁶³

LaRue sees the right to freedom of expression and opinion as a fundamental right in its own sense, as well as an enabler of other rights (e.g., the right to education, civil and political rights, freedom of association and assembly). Here, he calls the Internet a "catalyst" for individuals to exercise their right to freedom of opinion and express, and in so doing, it "facilitates the realization of a range of other human rights."⁶⁴ This is not a total freedom of information and expression, but any limitation imposed by states is to meet strict standards and must meet the test of adhering to publicly-accessible law, must follow one of the purposes set out in Article 19, paragraph 3, of the UDHR, protecting either the rights and reputations of others, national security, or public order, or public health or morals, and "it must be proven as necessary and the least restrictive means required to achieve the purported aim."⁶⁵

Overall, the UN declaration that Internet access is a human right is more expansive than calling for universal access to ICTs. Like the right to communicate, it firmly has its roots in Article 19. However, it still falls short of a formal declaration of the right to communicate by the international community. It can potentially be an intermediate step in moving towards a legal acknowledgement that will set the stage for an implementation based on mutual understanding and negotiation. Habermas argues that the inviolability of human dignity that serves as a foundation for the UHDR is not merely an ideal emerging after the Holocaust, but the moral source from which all basic human rights arise. The marginalization of groups or individuals,

⁶³ United Nations Human Rights Council, *Report of the Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression*, Frank La Rue, 7.

⁶⁴ *Ibid.*, 7.

⁶⁵ *Ibid.*, 8.

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including those without freedom of expression, access to means of expression, or any other dimension related to the right to communicate, has the potential to bring forth new rights. "The features of human dignity specified and actualized in this way can then lead both to a more complete exhaustion of existing civil rights and to the discovery and construction of new ones."⁶⁶ Human rights are a "realistic utopia" in that they institutionalize the utopian ideal of a just society in the laws of modern constitutional democracies.

Conclusion

This paper argued that universal access to the global Internet is essential for the preservation of democracy and human rights and placed the recent United Nations declaration that *Internet access is a human right* in the context of ongoing debates about the right to communicate, clarifying the distinction between universal service and the right to communicate. In an Information Society, where the access, creation, manipulation, and distribution of information are key aspects of economic, political, and sociocultural life, a lack of access to ICTs and relevant content puts individuals, regions, and nations at a great disadvantage. The 2011 UN declaration has rekindled discussion about human rights in the context of ICTs. The Internet offers immense promise for grass-roots engagement of citizens and authentic democratic governance. However, it is vital to acknowledge that ICTs are not the cause of human rights, but rather are powerful enablers. Further, the same ICTs that can be used to liberate or affirm social well-being can also be used to censor, oppress, or otherwise restrict human rights. The Internet can be employed to create public spaces for discourse and a reinvigoration of democratic

⁶⁶ Jürgen Habermas, "The Concept of Human Dignity and the Realistic Utopia of Human Rights", *Metaphilosophy* 41 (2010): 468.

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processes, but this can only occur within the larger effort of linking ICT development with human rights efforts worldwide. This means we must distinguish between approaches to communication rights that focus solely on the provision of access to ICTs and skills – universal service is an essential component, but it is only a part of the right to communicate. Although the right to communicate is complex and multi-dimensional, its heart is about the human-centered processes of communication, negotiation, and respect for diversity. The CRIS Campaign and Hamelink call for a community of diverse stakeholders representing governments, intergovernmental organizations (IGOs), businesses, and civil society, including those who have been left out of the conversation due to disability, poverty, or other imbalances.⁶⁷

While an exact, shared definition of the right to communicate has yet to emerge, a formal declaration by the international community will help to clarify and will also help to support other, related communication rights (e.g., privacy). The United National Human Rights Council's 2011 declaration falls short of this, but it is a good place to start in moving towards a more formal embodiment. A legal acknowledgement will set the stage for an implementation based on mutual understanding and negotiation. Translating the right to communicate into explicit policy will not be an easy task, but it is one worth pursuing. In a study of previous efforts by UNESCO and Canada to manifest the right to communicate into specific policies or laws, Birdsall, McIver, and Rasmussen argue that past efforts have failed because "the policy process was carried out in a narrow world of academic and policy experts" leading to an "abstract,

⁶⁷ See Communication Rights in the Information Society Campaign (CRIS), *Assessing Communication Rights: A Handbook*, and Cees J. Hamelink, *Human Rights for Communicators*.

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enclosed, and rarified level of discourse" that did not involve the broader public.⁶⁸ There is clearly need to include more citizens in public discourse and decision making about the right to communicate and what it means to individuals and societies in various socio-cultural contexts.

⁶⁸ William F. Birdsall, William J. McIver, Jr. and Merilee Rasmussen, "Translating a Right to Communicate into Policy" (Honolulu, Hawaii: Right to Communicate Group), 16-17.

To appear as: Winter, J. S. (2013). "Is Internet access a human right? Linking information and communication technology (ICT) development with global human rights efforts." *The Global Studies Journal*, 5(3), 35–48.

Works Cited

"Acceso a Internet es un derecho fundamental." *La Nación*, September 8, 2010. Accessed May 31, 2012, <http://www.nacion.com/2010-09-08/ElPais/NotasSecundarias/ElPais2514038.aspx>

Association for Computing Machinery. "Analysis of PIPA's Impact on DNS and DNSSEC". New York: Association for Computing Machinery, 2012.

Atkin, David J., Tuenyu Lau, and Carolyn A. Lin. "Still on Hold? A Retrospective Analysis of Competitive Implications of the *Telecommunication Act of 1996*, on its 10th Year Anniversary." *Telecommunications Policy* 30 (2006): 80-95.

Beck, Ulrich. *Risk Society: Towards a New Modernity*. London: Sage, 1992.

Benkler, Yochai. *The Wealth of Networks: How Social Production Transforms Markets and Freedom*. New Haven, CT: Yale University Press, 2006.

Birdsall, William F., William J. McIver, Jr., and Merilee Rasmussen. "Translating a Right to Communicate into Policy." Honolulu, Hawaii: Right to Communicate Group, 2002. Accessed December 11, 2011, <http://www.righttocommunicate.org/viewReference.atm?id=26>

Brock, Gerald W. *Telecommunication Policy for the Information Age*. Cambridge: Harvard University Press, 2004.

Bucchi, Massimiano, and Federico Neresini. "Science and Public Participation." In *The Handbook of Science and Technology Studies*, 3rd ed., edited by Edward J. Hackett, Olga Amsterdamska, Michael Lynch, and Judy Wajcman, 449-472. Cambridge, MA: MIT Press, 2008.

Castells, Manuel. *Communication Power*. New York: Oxford University Press, 2009.

Cerf, Vinton G. "Internet Access is Not a Human Right." *The New York Times*, January 4, 2012. Accessed January 4, 2012, <http://www.nytimes.com/2012/01/05/opinion/internet-access-is-not-a-human-right.html>

Chun, Soon Ae, Stuart Shulman, Rodrigo Sandoval, and Eduard Hovy. "Government 2.0: Making Connections between Citizens, Data and Government." *Information Polity* 15 (2010): 1-9.

Communication Rights in the Information Society Campaign (CRIS). *Assessing Communication Rights: A Handbook*. Toronto, Canada: CRIS Campaign, 2005. Accessed January 24,

To appear as: Winter, J. S. (2013). "Is Internet access a human right? Linking information and communication technology (ICT) development with global human rights efforts." *The Global Studies Journal*, 5(3), 35–48.

2011, <http://centreforcommunicationrights.org/images/stories/database/tools/cris-manual-en.pdf>

Crew, Michael A., and Paul R. Kleindorfer. "Efficient Entry, Monopoly, and the Universal Service Obligation in Postal Service." *Journal of Regulatory Economics* 14 (1998): 103-126.

Dakroury, Aliaa I. "The Baron of the Right to Communicate: Jean d'Arcy (1913-1983)." In *The Right to Communicate: Historical Hopes, Global Debates, and Future Premises*, edited by Aliaa Dakroury, Mahmoud Eid, and Yahya R. Kamalipour, 21-35. Dubuque, IA: Kendall Hunt, 2009.

Dakroury, Aliaa I., and William F. Birdsall. "Blogs and the Right to Communicate: Towards Creating a Space-less Public Sphere?" *IEEE International Symposium on Technology and Society* (2008): 1-8.

d'Arcy, Jean. "Direct Broadcast Satellites and the Right of Man to Communicate." *European Broadcasting Union Review* 118 (1969): 14-18.

d'Arcy, Jean. "Direct Broadcast Satellites and the Right of Man to Communicate." In *Right to Communicate: Collected Papers*, edited by L. Stan Harms, Jim Richstad, and Kathleen Kie, 1-9. Honolulu, Hawaii: Social Sciences Institute, University of Hawaii, 1977. Originally published in

Duhigg, Charles. "How Companies Learn Your Secrets." *The New York Times*, February 16, 2012. Accessed February 18, 2012, <http://www.nytimes.com/2012/02/19/magazine/shopping-habits.html>

"Finland Makes Broadband a Legal Right." *BBC News*, July 1, 2010. Accessed May 15, 2012, <http://www.bbc.co.uk/news/10461048>

Fisher, Desmond. "The Achievement of a New Right to Communicate", *Intermedia* 11 (1983): 36-40.

"French Downloaders Face Government Grilling." *BBC News*, July 27, 2011. Accessed May 15, 2012, <http://www.bbc.com/news/technology-14294517>

Habermas, Jürgen. *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society*. (Thomas Burger and Frederick Lawrence, trans). Cambridge, MA: MIT Press, 1991.

Habermas, Jürgen. "The Concept of Human Dignity and the Realistic Utopia of Human Rights", *Metaphilosophy* 41 (2010): 464-480.

To appear as: Winter, J. S. (2013). "Is Internet access a human right? Linking information and communication technology (ICT) development with global human rights efforts." *The Global Studies Journal*, 5(3), 35–48.

Hamelink, Cees J. *Human Rights for Communicators*. Cresskill, NJ: Hampton University Press, 2004.

Hamelink, Cees J., and Julia Hoffman. "The State of the Right to Communicate." *Global Media Journal* 7 (2008). Accessed January 7, 2012, <http://lass.calumet.purdue.edu/cca/gmj/fa08/gmj-fa08-hamelink-hoffman.htm>

Hamrell, Sven, and Olle Nordberg. "The Right to Inform and Be Informed," *Development Dialogue* (1981): 1-10.

Harms, L. Stan. "The Right to Communicate: Towards Explicit Recognition," *Intermedia* 29 (2001): 32-35.

Harms, L. Stan, and Jim Richstad. "Right to Communicate: Framework for the Evolution of a Fair World Communication Policy." In *Communication Policy and the Right to Communicate*, edited by Hanno Hardt, Stig Hadenius, Tomo Martelanc, L. Stan. Harms, Jim Richstad, and Hendrik Schmidt, International Congress of Communication Sciences at the Kongressalle, Berlin, June 3, 1977. Reproduced and distributed by the University of Hawaii at Manoa, 1977.

Hindman, Matthew. *The Myth of Digital Democracy*. Princeton, NJ: Princeton University Press, 2009.

International Telecommunication Union. *A 2010 Leadership Imperative: The Future Built on Broadband*. Geneva, Switzerland: International Telecommunication Union, 2010.

International Telecommunication Union. *World Information Society Report: Beyond WSIS*. Geneva, Switzerland: International Telecommunication Union, 2007.

Jasanoff, Sheila. "Science and Citizenship: A New Synergy." *Science and Public Policy* 31 (2003):90-94.

Langner, Ralph. "Cracking Stuxnet, a 21st-century Cyber Weapon." TED Talks, 2011. Accessed May 3, 2012, http://www.ted.com/talks/ralph_langner_cracking_stuxnet_a_21st_century_cyberweapon.html

Napoli, Philip M. *Foundations of Communications Policy: Principles and Process in the Regulation of Electronic Media*. Cresskill, NJ: Hampton Press, 2001.

Organisation for Economic Co-operation and Development. "OECD Broadband Portal." Last modified March 5, 2012. Accessed April 27, 2012, http://www.oecd.org/document/54/0,3746,en_2649_34225_38690102_1_1_1_1,00.html

To appear as: Winter, J. S. (2013). "Is Internet access a human right? Linking information and communication technology (ICT) development with global human rights efforts." *The Global Studies Journal*, 5(3), 35–48.

Rhoads, Christopher, and Geoffrey A. Fowler. "Egypt Shuts Down Internet, Cell Phone Services." *The Wall Street Journal*, January 29, 2011. Accessed January 29, 2011, <http://online.wsj.com/article/SB10001424052748703956604576110453371369740.html>

Robertson, Scott., Ravi Vatrappu, and Richard Medina. "The Social Life of Social Networks: Facebook Linkage Patterns in the 2008 U.S. Presidential Election." Paper presented at the 10th International Digital Government Research Conference, Puebla, Mexico, May 17-21, 2009.

Schement, Jorge R. "Beyond Universal Service: Characteristics of Americans without Telephones, 1980-1993." *Telecommunications Policy* 19 (1995): 477-485.

United Nations. *The Universal Declaration of Human Rights*. Geneva, Switzerland: United Nations, 1948. Accessed March 11, 2012, <http://www.un.org/Overview/rights.html#a19>

United Nations Human Rights Council. *Report of the Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression, Frank La Rue*. Geneva, Switzerland: United Nations, 2011.

United Nations Educational Scientific and Cultural Organization. *Toward a Definition of the Right to Communicate: An Expert Meeting*. Geneva, Switzerland: United Nations, 1978.

"Vint Cerf of Google on Internet rights." *The Christian Science Monitor*, March 8, 2012. Accessed on March 11, 2012, <http://www.csmonitor.com/Commentary/Global-Viewpoint/2012/0308/Vint-Cerf-of-Google-on-Internet-rights-interview>

Winter, Jenifer S. "Privacy and the Emerging Internet of Things: Using the Framework of Contextual Integrity to Inform Policy." Paper presented at the Pacific Telecommunications Council Conference, Honolulu, Hawaii, January 15-19, 2012.

Winter, Jenifer S., and Dan J. Wedemeyer. "The Roots of the Right to Communicate and Emerging Participatory Policy." In *The Right to Communicate: Historical Hopes, Global Debates, and Future Premises*, edited by Aliaa Dakroury, Mahmoud Eid, and Yahya R. Kamalipour, 43-70. Dubuque, IA: Kendall Hunt, 2009.

van Dijk, Jan A.G.M. *The Deepening Divide: Inequality in the Information Society*. Thousand Oaks, CA: Sage, 2005.